



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE  
GOVERNOR

PATRICIA W. AHO  
COMMISSIONER

**Timken NCT LLC  
Kennebec County  
Augusta, Maine  
A-217-71-K-R**

**Departmental  
Findings of Fact and Order  
Air Emission License  
Renewal**

**FINDINGS OF FACT**

After review of the air emissions license renewal application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (the Department) finds the following facts:

**I. REGISTRATION**

**A. Introduction**

Timken NCT LLC (Timken) has applied to renew their Air Emission License permitting the operation of emission sources associated with their facility. Timken's Augusta facility is an armature rewinding shop for the repair of small motors and generators. The equipment addressed in this license is located at 60 Darin Drive, Augusta, Maine.

**B. Emission Equipment**

The following equipment is addressed in this air emission license:

Fuel Burning Equipment						
<u>Class VII Incinerators</u>	<u>Maximum Design Feed Rate, lb/hr</u>	<u>Max. Capacity, MMBtu/hr, Fuel</u>	<u>Waste Type</u>	<u>Date of Manuf.</u>	<u>Control Equipment</u>	<u>Stack #</u>
Incinerator #1	52	1.8, Propane	6	1978	Afterburner	1
Incinerator #2	20	0.225, Propane	6		Afterburner	2
Process Equipment						
<u>Equipment</u>	<u>Potential Pollutants</u>	<u>Date of Installation</u>	<u>Control Equipment</u>	<u>Stack #</u>		
Bake Oven	VOC	1976	None	3		
Electric Oven	VOC			4		
Steam Cleaner	--			8		
Paint Booth	PM, VOC			10		
Vacuum Pressure Impregnation (VPI) Tank	VOC			13		

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C. Application Classification

The application for Timken does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of currently licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (CMR) 115 (as amended). With the annual limits on the hours of operation of the Incinerators #1 and #2 and the HAP limits associated with the VPI process, the Bake Oven, and the Paint Booth, the facility is licensed below the major source thresholds for hazardous air pollutants (HAP) and is considered an area source of HAP.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment. BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering the following:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Incinerators #1 and #2

Incinerator #1 and Incinerator #2, formerly classified as Class VII incinerators, are both Class V incinerators as defined in 06-096 CMR 100 (as amended), designed to incinerate Type 5 waste, Type 6 waste, or a combination of the two types. Timken uses Incinerator #1 and Incinerator #2 to incinerate Type 6 waste, which is solid by-product waste such as rubber, plastics, contaminated wood waste, etc. as defined in 06-096 CMR 100. Large parts (engines, motors, turbines, etc.) are put into the incinerators to burn off excess resin or wire coating, to prepare the parts to be rebuilt or recoated. The two incinerators fire propane.

The pounds per hour limits for these two incinerators as specified in the BPT Findings sections below are limits on the quantity (in pounds) of material to be incinerated, and not the pounds of material *put into* each unit. Large parts weighing much more than the lb/hr limit are put into the incinerators. The limits apply only to the material being burned off and *not* to the pieces of equipment being put into (and later removed from) the incinerators off from which excess material is incinerated. Compliance with the limits shall be documented through records of the weights of materials put into each incinerator and the weights of materials removed from each incinerator. The difference (weight in

minus weight out) shall be considered the quantity of material incinerated for each use of Incinerator #1 or Incinerator #2.

1. BPT Findings: Incinerator #1

The BPT findings for Incinerator #1 (1.8 MMBtu/hour) are as follows:

- a. The feed rate shall not exceed the design maximum of 52 pounds per hour of Type 6 waste.
- b. Incinerator #1 shall not operate without the afterburner being in full operation.
- c. Incinerator #1 shall not exceed 1,500 hours per year of operation.
- d. The portion of emissions from fuel burning in Incinerator #1 shall not exceed the following:

<b>Pollutant</b>	<b>Fuel Combustion Emission Factor</b>	<b>Source of Emission Factor</b>	<b>Emission Limit, lb/hour</b>
PM	0.10 gr/dscf	A-217-71-H-R (December 17, 2009), BPT	0.23
PM <sub>10</sub>	From PM factor		0.23
SO <sub>2</sub>	0.10 lb/1000 gal	AP-42 Table 1.5-1 (7/08)	0.002
NO <sub>x</sub>	13.00 lb/1000 gal		0.25
CO	7.50 lb/1000 gal		0.14
VOC	1.00 lb/1000 gal		0.02

- e. Visible emissions from Incinerator #1 shall not exceed 10% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a continuous three-hour period. [06-096 CMR 115, BPT]

2. BPT Findings: Incinerator #2

The BPT findings for Incinerator #2 (0.225 MMBtu/hour) are as follows:

- a. The feed rate shall not exceed the design maximum of 20 pounds per hour of Type 6 waste.
- b. Incinerator #2 shall not operate without the afterburner being in full operation.
- c. Incinerator #2 shall not exceed 1,600 hours per year of operation.
- d. The portion of emissions from fuel burning in Incinerator #2 shall not exceed the following:

<b>Pollutant</b>	<b>Fuel Combustion Emission Factor</b>	<b>Source of Emission Factor</b>	<b>Emission Limit, lb/hour</b>
PM	0.10 gr/dscf	A-217-71-H-R (December 17, 2009), BPT	0.03
PM <sub>10</sub>	From PM factor		0.03
SO <sub>2</sub>	0.10 lb/1000 gal	AP-42 Table 1.5-1 (7/08)	Negligible
NO <sub>x</sub>	13.00 lb/1000 gal		0.03
CO	7.50 lb/1000 gal		0.02
VOC	1.00 lb/1000 gal		0.002

- e. Visible emissions from Incinerator #2 shall not exceed 10% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a continuous three-hour period. [06-096 CMR 115, BPT]

C. Process Equipment

1. Vacuum Pressure Impregnation (VPI) Tank, Bake Oven, Paint Booth

Timken uses the Vacuum Pressure Impregnation (VPI) Tank and the Bake Oven as part of the motor refurbishing process. Once an armature is rewound, insulating resin material is applied using a Vacuum Pressure Impregnation process to seal porous surfaces. The part being treated is first preheated in an oven to evaporate any moisture and improve resin penetration. Using a combination of dry and wet vacuum and pressure cycles, insulating resin is assimilated throughout the assembly. The VPI process is completed with the resin-impregnated piece being heated in the Bake Oven to cure the resin.

The resin used in the VPI process contains 0.03% by weight of epichlorohydrin, a substance which is both a volatile organic compound (VOC) and a hazardous air pollutant (HAP) per EPA classifications.

The Paint Booth is used for spray painting motors and electrical equipment.

The wide variety of coatings and the resin used at the facility may contain VOC and/or HAP. Timken maintains records of types and quantities of paints and other items containing VOC and HAP, usage of which is dictated by customer requirements. The information is updated monthly or more frequently when a new product is added to their inventory. Based on recent annual resin and paints/coatings use, Timken shall be limited to 1.0 ton/year of VOC emissions and 1.1 tons/year of HAP emissions from these non-combustion sources, both on a calendar year basis. Compliance shall be documented through recordkeeping of resin use and paints/coatings use and updated on a monthly basis.

2. Electric Oven

A small Electric Oven is used for the curing of coatings on small motor parts. This unit is operated approximately 20 hours per week, emitting small quantities of VOC. Although there is no afterburner, emissions from this unit are considered negligible. The unit is noted for equipment inventory purposes only and is not addressed further in this license.

3. Steam Cleaner

A Steam Cleaner is used to clean motors as needed. This unit is self-enclosed and uses propane to generate the required steam. Emissions from this unit are vented

through its dedicated stack and have been determined to be negligible. Thus, this unit is noted for equipment inventory purposes only and is not addressed further in this license.

D. Parts Washers

Timken utilizes two solvent cleaners at the facility, Parts Washer #1 and Parts Washer #2. Each unit has a design capacity of 30 gallons and are both Safety Kleen Model #250, owned and maintained by Safety Kleen. Safety Kleen services the units and disposes of all waste associated with the two parts washers. The parts washers are subject to *Solvent Cleaners*, 06-096 CMR 130 (as amended), and records shall be kept documenting compliance.

E. Annual Emissions

1. Total Annual Emissions

Timken shall be restricted to the following annual emissions, on a calendar year basis. The tons per year values are calculated based on 1,500 hours per year of operation of Incinerator #1, 1,600 hours per year of operation of Incinerator #2, and 1.0 ton/year of VOC emissions and 1.1 tons/year of HAP emissions the VPI, Bake Oven, and Paint Booth processes.

**Total Facility Licensed Annual Emissions**  
**Tons/year**  
(used to calculate the annual license fee)

	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>	<b>HAP</b>
Incinerator #1	0.17	0.17	0.001	0.19	0.11	0.01	--
Incinerator #2	0.02	0.02	negligible	0.03	0.01	0.002	--
VPI, Bake Oven, Paint Booth	--	--	--	--	--	1.0	1.1
<b>Total TPY*</b>	<b>0.2</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.1</b>	<b>1.0</b>	<b>1.1</b>

\* Rounded to the nearest tenth of a ton

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans*, 40 CFR Part 52, Subpart A, §52.21, *Prevention of Significant Deterioration of Air Quality* rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO<sub>2</sub>e).

The quantity of CO<sub>2</sub>e emissions from this facility is less than 100,000 tons per year, based on the following:

- the facility's incinerators' operating limits;
- worst case emission factors from the following sources: U.S. EPA's AP-42, the Intergovernmental Panel on Climate Change (IPCC), and 40 CFR Part 98, *Mandatory Greenhouse Gas Reporting*; and
- global warming potentials contained in 40 CFR Part 98.

No additional licensing actions to address GHG emissions are required at this time.

### III. AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source is determined by the Department on a case-by case basis. In accordance with 06-096 CMR 115, an ambient air quality impact analysis is not required for a minor source if the total licensed annual emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

Pollutant	Tons/Year
PM <sub>10</sub>	25
SO <sub>2</sub>	50
NO <sub>x</sub>	50
CO	250

The total licensed annual emissions for the facility are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license.

### ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-217-71-K-R subject to the following conditions.

Severability. The invalidity or unenforceability of any provision of this License or part thereof shall not affect the remainder of the provision or any other provisions. This License shall be

construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

**STANDARD CONDITIONS**

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353-A. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a

renewal of a license or amendment shall not stay any condition of the license.  
[06-096 CMR 115]

- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
  - A. Perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    - 1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA if visible emissions, equipment operating parameters, staff inspection, air monitoring, or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    - 2. Pursuant to any other requirement of this license to perform stack testing.
  - B. Install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - C. Submit a written report to the Department within thirty (30) days from date of test completion.  
[06-096 CMR 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
  - A. Within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
  - B. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and



C. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 115]

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

#### **SPECIFIC CONDITIONS**

**(16) Incinerator #1 and Incinerator #2**

- A. Incinerator #1 and Incinerator #2 shall only be used to dispose of Type 6 waste and shall fire only propane. [06-096 CMR 115, BPT]
- B. Incinerators #1 and #2 shall not exceed a maximum feed rate of 52 pounds per hour for Incinerator #1 and 20 pounds per hour for Incinerator #2. [06-096 CMR 115, BPT]
- C. Timken shall operate the incinerators such that combustion gases pass through the afterburner which shall operate at all times the incinerator is in use. [06-096 CMR 115, BPT]
- D. Incinerator #1 shall not exceed 1,500 hours per calendar year of operation. Incinerator #2 shall not exceed 1,600 hours per calendar year of operation. Compliance shall be documented through records of the operating time of each unit. [06-096 CMR 115, BPT]

E. Emissions shall not exceed the following:

<u>Emission Unit</u>	<u>Pollutant</u>	<u>gr/dscf</u>	<u>Origin and Authority</u>
Incinerator #1	PM	0.10	A-217-71-H-R (December 17, 2009), BPT
Incinerator #2			

F. The portion of emissions from fuel burning in the incinerators shall not exceed the following: [06-096 CMR 115, BPT]

<u>Pollutant</u>	<u>Incinerator #1</u>	<u>Incinerator #2</u>
	<u>Emission Limit, lb/hour</u>	<u>Emission Limit, lb/hour</u>
PM	0.23	0.03
PM <sub>10</sub>	0.23	0.03
SO <sub>2</sub>	0.002	Negligible
NO <sub>x</sub>	0.25	0.03
CO	0.14	0.02
VOC	0.02	0.002

G. Visible emissions from either Incinerator #1 or Incinerator #2 shall not exceed 10% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a continuous three-hour period. [06-096 CMR 115, BPT]

(17) **Vacuum Pressure Impregnation, Bake Oven, and Paint Booth**

Timken shall not exceed emissions of 1.0 ton/year of VOC emissions and 1.1 tons/year of HAP emissions from the VPI process, the Bake Oven, and the Paint Booth, both on a calendar year basis.

Compliance shall be documented through recordkeeping of resin use and paints/coatings use and updated on a monthly basis, based on Safety Data Sheets for the resin and paints and records of the amounts of product used and purchased. [06-096 CMR 115]

(18) **Parts Washers**

Parts washers at Timken are subject to *Solvent Cleaners*, 06-096 CMR 130 (as amended).

A. Timken shall keep records of the amount of solvent added to each parts washer. [06-096 CMR 115, BPT]

B. The following are exempt from the requirements of 06-096 CMR 130 [06-096 CMR 130]:

1. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);

2. Wipe cleaning; and,
  3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.
- C. The following standards apply to cold cleaning machines that are applicable sources under Chapter 130.
1. Timken shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 CMR 130]:
    - a. Waste solvent shall be collected and stored in closed containers.
    - b. Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
    - c. Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized, or shower-type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
    - d. The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
    - e. Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the parts washer.
    - f. When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
    - g. Spills during solvent transfer shall be cleaned immediately. Sorbent material used to clean spills shall then be immediately stored in covered containers.
    - h. Work area fans shall not blow across the opening of the parts washer unit.
    - i. The solvent level shall not exceed the fill line.
  2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches. [06-096 CMR 130]

**(19) General Process Sources**

Visible emissions from any general process source whose visible emissions have not been specifically addressed in this license shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period. [06-096 CMR 101]

Timken NCT LLC  
Kennebec County  
Augusta, Maine  
A-217-71-K-R

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Departmental  
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- (20) Timken shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 30 DAY OF January, 2015.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Corne for  
PATRICIA W. AHO, COMMISSIONER

**The term of this license shall be ten (10) years from the signature date above.**

[Note: If renewal application, determined as complete by the Department, is submitted prior to expiration of this license, then pursuant to Title 5 MRSA §10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: December 10, 2014

Date of application acceptance: December 11, 2014

Date filed with the Board of Environmental Protection:

This Order prepared by Jane E. Gilbert, Bureau of Air Quality.

